

9.3 HIWIN G03 Low Particle-emitting (High Speed) Grease

• Features

- 1.Low dust generation characteristics and suitable for clean room environment.
- 2.Wear resistant under high speed conditions.
- 3.Long term grease, well wear resistance under high speed conditions.
- 4.Low starting and running torques particularly at low temperatures, to ensure high efficiency and conserve energy.
- 5.Compatible with plastic components.

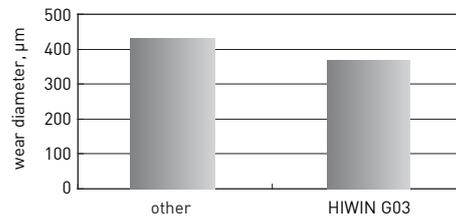
• Basic Properties

		HIWIN G03
Color	Beige	
Base Oil	Synthetic hydrocarbon oil	
Consistency Enhancer	Special calcium soap	
Service Temp. (°C)	-45~125	
NLGI-grade (0.1mm)	265-295	
Viscosity (cst)	40°C	30
	100°C	5.9
Drop Point (°C)	>210	
4-ball test (ASTM D2266)	366µm	

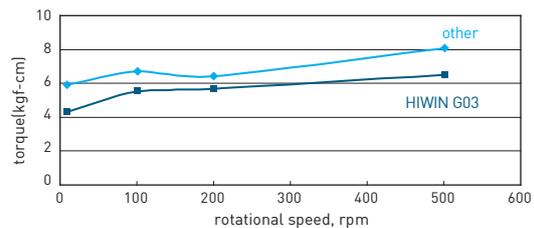
	HIWIN G03	other	Note
Anti wear	●	●	4-ball test (ASTM D2266) 15%more
Dust generation	●	●	Dust generation of KKin clean room
Friction torque at low speed	●	▲	7~15 % lower less than 500rpm
Friction resistance at high speed	●	▲	Motor voltage 1.2~2.6% lower
Service Temperature Range	-45~125	-10~80	

• 4-ball test (ASTM D2266)

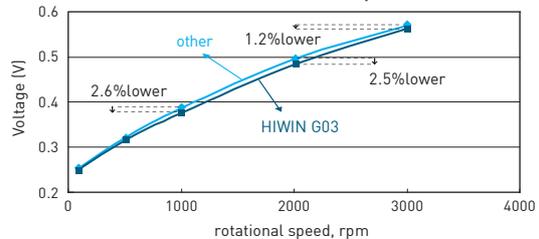
	Wear Scar	Diameter (µm)
other		432
HIWIN G03		366



• Wear resistance



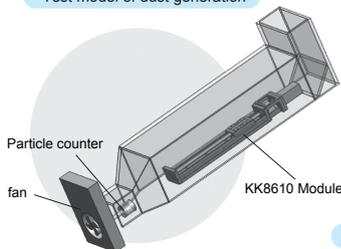
Friction torque of ball screw under different rotational speed



Motor Driven Voltage Under Different Rotational Speed

• Dust generation

Test model of dust generation



Test Condition : Air speed 2.5m/s
Rotational Speed of Screw : 1000rpm
Stroke : 210mm

Dust Generation Test of Grease

